

October 21, 2005

Via Electronic Filing

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Shared Use of the 2496-2500 MHz Band Between Industrial, Scientific and Medical (“ISM”) Devices and Broadband Radio Service (“BRS”); IB Docket No. 02-364 and ET Docket No. 00-258; WRITTEN EX PARTE COMMUNICATION of the Association of Home Appliance Manufacturers (“AHAM”)

Dear Ms. Dortch:

Pursuant to the provisions of Section 1.1206 of the rules of the Federal Communications Commission (“FCC”), AHAM submits this correspondence for inclusion in the record of the above referenced proceedings. AHAM provides this letter in response to the October 3, 2005 letter filed by Sprint Nextel (“Sprint”) following up its September 30, 2005 meeting with Ahmed Lahjouji and Ronald Chase of the FCC’s staff. According to Sprint’s October 3 letter, its September 30, 2005 meeting was designed to demonstrate the large separation distances required between BRS devices and microwave ovens.

As an initial matter, AHAM notes that Sprint continues to misrepresent the regulatory landscape to the FCC. It asserts that microwave ovens operate with “unlimited power” in the band 2400-2500 MHz. While the FCC has not, consistent with international practice, imposed in-band emission limits for ISM devices in the band 2400-2500 MHz, those devices *are* subject to out-of-band emission limits. In order to meet those out-of-band emission limits, ISM devices cannot, as Sprint would have the FCC believe, operate with “unlimited power.”

Moreover, Sprint’s analysis is seriously flawed and its alleged conclusions must be rejected. First, the analysis rests on the eleven (11) year old report published by the National Telecommunications and Information Administration (“NTIA”). AHAM has already proven that the NTIA data, because of designs in the NTIA study (and the fact that the ovens NTIA tested may not bear any relationship to the ovens in use today) cannot be the basis of any meaningful analysis designed to determine the appropriate level of emissions acceptable to various receiver technologies.^{1/} Yet, Sprint continues to use the NTIA data to develop the conclusions that are the bases of its October 3 letter.

^{1/} See, letter from AHAM to Secretary, Federal Communications Commission, FCC Docket Nos. 02-364 and 00-258, September 27, 2005 at footnotes 4,5.

The Sprint letter attempts to use the already flawed data in the NTIA report to determine the separation distance required between microwave ovens and BRS devices to achieve an “interference objective.” However, Sprint does not indicate whether it has employed peak or average emission levels in order to arrive at its desired interference objective. AHAM expects that Sprint has used average emission levels. However, the NTIA study on which Sprint’s analysis is based employed peak emission levels. Because of its failure to use the same emission measurements in arriving at an interference objective as the emission measurements used in the NTIA study, its attempt to use the two as a basis for comparison is flawed. In addition, Sprint has used a faulty limit for ovens with power greater than 500 watts (10 uVm at 1600 meters) in calculating emissions at various distances. As AHAM already pointed out in its September 27 letter to the FCC, the level used by Sprint does not apply to microwave ovens at all; it applies to arc welders and similar devices. Sprint has simply mis-interpreted the NTIA data on which it has based its conclusions.

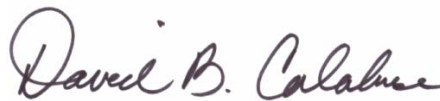
In addition, Sprint’s calculations and arguments are based on the presumption that the microwave oven in question is radiating directly in the line of sight into the BRS receiver. However, this assumption fails to take into account the fact that a microwave oven will radiate much less in directions other than directly from the front of the device. For example, emission levels at the rear of a microwave oven could be as much as twenty to thirty dB lower (100-1000 times lower in power level). AHAM has asserted that interference, if any, between microwave ovens and BRS devices can be mitigated, during the potential 1% of the day, on average, when both devices may be in use. Sprint’s analysis does not change AHAM’s position that interference between the devices is not inevitable. Because Sprint’s calculations are based on emissions based solely from the front of the device in a direct path to the BRS antenna, consumers may only be required to slightly rotate the BRS device to avoid any of the interference Sprint suggests.

Finally, AHAM notes that Sprint’s position appears to be internally inconsistent. On the one hand, it urges the FCC to apply the Part 18 out-of-band emission limits to the band 2496-2500 MHz. On the other hand, it suggests that if the FCC imposes those limits, the interference objective it proposes will not be satisfied even at 48 meters.

Based on the foregoing, AHAM continues to urge the FCC to reject the petitions for reconsideration of the decision in these proceedings and retain the regulatory scheme, used on a world-wide basis, for the band 2400-2500 MHz.

If there are any questions regarding this matter, please contact the undersigned directly.

Sincerely,

A handwritten signature in dark ink, reading "David B. Calabrese". The signature is fluid and cursive, with the first name "David" and last name "Calabrese" clearly legible.

David B. Calabrese
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